AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended)   A method of transmitting data over a decentralised network, the method comprising the steps of:

receiving a plurality of data files at a relay device, at least one of the data files being a compressed data file,

processing the data therein to create an aggregated compressed data file, and

transmitting the aggregated compressed data file to a plurality of similar relay devices over the decentralised network,

wherein the compression and aggregation technique applied to the data is a Bloom filter process.

2. (Canceled)

3. (Previously Presented)   A method according to claim 1, wherein each individual aggregate message has a predetermined expiry time, and messages are only forwarded if they have not exceeded their predetermined expiry time.

4. (Original)   A method according to claim 3, and messages received by a relay device having the same expiry time are aggregated into a single message for further dissemination.

5. (Previously Presented) A method according to claim 1, wherein the aggregated compressed data files are transmitted using an epidemic dissemination process.

6. (Currently Amended) A method according to claim 1, wherein each relay device stores each message received, compares subsequently received messages with those already stored, and suspends the aggregating and forwarding process for any duplicate messages identified.

7. (Previously Presented) A method according to claim 1, wherein at least some of the relay devices receive compressed data from associated data generation and compression means.

8. (Currently Amended) Relay device ~~having~~comprising:

a receiver for receiving a plurality of data files, at least one of the data files being a compressed data file,

an aggregation processor for processing the data therein to create an aggregated compressed data file, and

a transmitter for selecting a plurality of similar relay devices and transmitting the aggregated data file to the selected relay devices over a decentralized network,

wherein the relay device has a configuration to handle the data in the form of Bloom filters.

9. (Canceled)

10. (Currently Amended)   Relay device according to claim 8, <u>further</u> comprising means for determining a predetermined expiry time for each aggregate message, and selecting for transmission only those messages that have not exceeded their expiry time.

11. (Original)   Relay device according to claim 10, wherein the aggregation processor is arranged to aggregate messages having the same expiry time aggregated into a single message for further transmission.

12. (Original)   Relay device according to claim 11 having means for disseminating a plurality of such aggregate messages having different expiry times

13. (Previously Presented)   Relay device according to claim 8, wherein the transmitter operates according to an epidemic dissemination process.

14. (Previously Presented)   Relay device according to claim 8, comprising data storage means for storing each message received, and processing means for comparing each stored message with those subsequently received, and wherein the transmission means is arranged to only transmit those received messages that are not duplicated in the data storage means.

15. (Previously Presented)   Relay device according to claim 8, further having means to receive further data from data generation means, and means to compress the data for transmission in an aggregated data message.

16. (Previously Presented)   Relay device according to claim 8, having analysis means for analysing incoming aggregate messages to capture data contained therein.

17. (Currently Amended)   A decentralised communications network in which a plurality of servers collectively maintain a database that records event reports, the plurality of servers forming an overlay network and intercommunicating using a common messaging strategy based on a publisher forwarding scheme running over the overlay network, the servers having means to aggregate compressed data messages received from one or more other servers to create a compressed aggregate message, and to broadcast the compressed aggregate message to one or more of the other servers, at least one of the servers having means to generate data messages in response to specific events, and means to aggregate the data messages so generated with the messages received from the other servers,

the servers have means to modify the aggregate messages they receive before broadcasting them, have means for the deletion of time-expired elements of the messages, and are arranged for the dissemination of aggregated Bloom filter messages using an epidemic dissemination process.

18. - 20. (Canceled)

21. (Currently Amended)   A network according to claim 1817, wherein individual servers have means for deleting from the data that is to be forwarded any data that has been previously received and forwarded by the same device.

22. (Currently Amended)   A network according to claim ~~18~~ 17, wherein individual servers have means for extracting data required by a processing device associated with the server.

23. (New) The method according to claim 1, wherein the data that is received at the relay device from different sources at a same time frame is aggregated by the Bloom filter process so that in each said time frame only a single Bloom filter message is transmitted by the relay device.

24. (New) The relay device according to claim 8, wherein the data that is received by the receiver of the relay device from different sources at a same time frame is aggregated by the Bloom filters so that in each said time frame only a single Bloom filter message is transmitted by the transmitter of the relay device.

25. (New) The network according to claim 17, wherein the messages that are received at at least one of the servers from different sources at a same time frame are aggregated by a Bloom filter process so that in each said time frame only a single Bloom filter message is transmitted by the at least one of the servers.